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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.  | CONFIRMATION NO. |
|--|-------------|----------------------|----------------------|------------------|
| 10/527,328   | 09/22/2005  | Koji Okomori         | 159-87               | 3539             |
| 23117  | 7590        | 05/11/2009           | EXAMINER             |                  |
| NIXON & VANDERHYE, PC<br>901 NORTH GLEBE ROAD, 11TH FLOOR<br>ARLINGTON, VA 22203 |             |                      | SHEWAREGED, BETELHEM |                  |
|  |             |                      | ART UNIT             | PAPER NUMBER     |
|  |             |                      | 1794                 |                  |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/527,328             | OKOMORI ET AL.      |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Betelhem Shewareged    | 1794                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 01 May 2009.

2a) This action is **FINAL**.                            2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 6 and 8 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 6 and 8 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.

5) Notice of Informal Patent Application

6) Other: \_\_\_\_\_.

## DETAILED ACTION

1. Applicant's response along with the Request for Continued Examination (RCE) and Declaration Under 37 CFR 1.132 filed on 05/01/2009 has been fully considered. Claims 1-5, 7 and 9 are canceled, and claims 6 and 8 are pending.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kai et al. (JP 2002-088679) in view of Matsumura et al. (JP 2002-161494), Ryu et al. (JP 2001-288690) and Shay et al. (US 5,478,602).

4. Claim 6: Kai teaches a coated paper for gravure printing provides a coated layer having pigment and an adhesive on a base paper. The coated paper for gravure printing is characterized by providing a coated layer containing 50 parts by weight or more (based on 100 parts by weight pigment) of kaolin as the pigment, having particle diameter distribution contained in an amount of  $\geq 65\%$  in a range of 0.4-4.2  $\mu\text{m}$  based on volume (abstract). Kai further teaches that an organic pigment may be contained in the coating composition [0014]. Kai does not teach a hollow pigment as the organic pigment.

5. Matsumura teaches a gravure printing paper containing a paper and a coating layer containing a hollow organic pigment provided on the paper (abstract). The hollow pigment has a particle size of 0.2-0.5 um [0011], and is contained in an amount of 5-20 parts by weight [0016].

6. Kai and Matsumura are analogous art because they are from the same field of endeavor that is the gravure coated paper art. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the hollow organic pigment of Matsumura with the invention of Kai, and the motivation would be, as Matsumura suggests, to improve the glossiness property of the layer, provide precise coating and improve drying property of the layer [0012].

7. In one example, Kai teaches coating the base paper at a coating speed of 500m/min, and the invention of Kai is not limited to one example. However, Shay teaches a coated paper for gravure printing, wherein the coating is provided at a coating speed of 4000ft/min [1219m/min] (col. 14, line 40).

8. Kai and Shay are analogous art because they are from the same filed of endeavor that is the coated paper art. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to apply the coating at a higher coating speed, and the motivation would be, as Shay suggests, to reduce the water forced into the substrate (col. 13, lines 24-25), and to increase production of the coated paper without damaging.

9. In the examples of Kai, sheet gloss and density have been taught (see Table 2); however, the invention of Kai is not limited to the examples. The Office realizes that all

of the claimed effects or physical properties are not positively stated by the reference(s). However, the reference(s) teaches all of the claimed ingredients. Therefore, the claimed effects and physical properties, i.e. a sheet gloss and density would implicitly be achieved by a composite with all the claimed ingredients. If it is the applicant's position that this would not be the case: (1) evidence would need to be provided to support the applicant's position; and (2) it would be the Office's position that the application contains inadequate disclosure that there is no teaching as to how to obtain the claimed properties with only the claimed ingredients.

10. Claim 8: Kai does not teach the base paper contains amorous silicate in an amount of 3-12% by weight. However, Ryu teaches a paper containing silicate [0010] in an amount of 3 or less weight % [0011], wherein the amount over laps with the claimed value of 3-12%. Kai and Ryu are analogous art because they are from similar problem solving area in relation to base paper. At the time of the invention it would have been obvious to a person of ordinary skill in the art to combine the silicate of Ryu with the invention of Kai, and the motivation would be, as Ryu suggests, controlling coefficient of friction and printing opacity of the paper [0011].

11. Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kai et al. (JP 2002-088679) in view of Sasaki et al. (JP 11-279990), Ryu et al. (JP 2001-288690) and Shay et al. (US 5,478,602).

12. Claim 6: Kai teaches a coated paper for gravure printing provides a coated layer having pigment and an adhesive on a base paper. The coated paper for gravure printing

is characterized by providing a coated layer containing 50 parts by weight or more (based on 100 parts by weight pigment) of kaolin as the pigment, having particle diameter distribution contained in an amount of  $\geq 65\%$  in a range of 0.4-4.2  $\mu\text{m}$  based on volume (abstract). Kai further teaches that an organic pigment may be contained in the coating composition [0014]. Kai does not teach a hollow pigment as the organic pigment.

13. Sasaki teaches a gravure printing paper containing a paper and a coating layer having a hollow organic pigment provided on the paper (abstract), wherein the hollow pigment has a particle size of 0.4-2.0  $\mu\text{m}$  [0016], in amount of 3-15% by weight [0014].

14. Kai and Sasaki are analogous art because they are from the same field of endeavor that is the gravure coated paper art. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the hollow organic pigment of Sasaki with the invention Kai, and the motivation would be, to enhance the ink receiving property of the layer.

15. In one example, Kai teaches coating the base paper at a coating speed of 500m/min, and the invention of Kai is not limited to one example. However, Shay teaches a coated paper for gravure printing, wherein the coating is provided at a coating speed of 4000ft/min [1219m/min] (col. 14, line 40).

16. Kai and Shay are analogous art because they are from the same field of endeavor that is the coated paper art. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to apply the coating at a higher coating speed, and the motivation would be, as Shay suggests, to reduce the water forced into

the substrate (col. 13, lines 24-25), and to increase production of the coated paper without damaging.

17. In the examples of Kai, sheet gloss and density have been taught (see Table 2); however, the invention of Kai is not limited to the examples. The Office realizes that all of the claimed effects or physical properties are not positively stated by the reference(s). However, the reference(s) teaches all of the claimed ingredients. Therefore, the claimed effects and physical properties, i.e. a sheet gloss and density would implicitly be achieved by a composite with all the claimed ingredients. If it is the applicant's position that this would not be the case: (1) evidence would need to be provided to support the applicant's position; and (2) it would be the Office's position that the application contains inadequate disclosure that there is no teaching as to how to obtain the claimed properties with only the claimed ingredients.

18. Claim 8: Kai does not teach the base paper contains amorous silicate in an amount of 3-12% by weight. However, Ryu teaches a paper containing silicate [0010] in an amount of 3 or less weight % [0011], wherein the amount over laps with the claimed value of 3-12%. Kai and Ryu are analogous art because they are from similar problem solving area in relation to base paper. At the time of the invention it would have been obvious to a person of ordinary skill in the art to combine the silicate of Ryu with the invention of Kai, and the motivation would be, as Ryu suggests, controlling coefficient of friction and printing opacity of the paper [0011].

19. Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kai et al. (JP 2002-088679) in view of Hayashi et al. (JP 06-235194), Ryu et al. (JP 2001-288690) and Shay et al. (US 5,478,602).

20. Claim 6: Kai teaches a coated paper for gravure printing provides a coated layer having pigment and an adhesive on a base paper. The coated paper for gravure printing is characterized by providing a coated layer containing 50 parts by weight or more (based on 100 parts by weight pigment) of kaolin as the pigment, having particle diameter distribution contained in an amount of  $\geq 65\%$  in a range of 0.4-4.2  $\mu\text{m}$  based on volume (abstract). Kai further teaches that an organic pigment may be contained in the coating composition [0014]. Kai does not teach a hollow pigment as the organic pigment.

21. Hayashi teaches a gravure printing paper containing a paper and a coating layer containing a hollow organic pigment provided on the paper (abstract), wherein the hollow pigment has a particle size of 0.5-3.0  $\mu\text{m}$  in an amount of 2-30 parts by weight [0004].

22. Kai and Hayashi are analogous art because they are from the same field of endeavor that is the gravure coated paper art. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the hollow organic pigment of Hayashi with the invention of Kai, and the motivation would be to enhance the printing property and glossiness of the layer.

23. In one example, Kai teaches coating the base paper at a coating speed of 500m/min, and the invention of Kai is not limited to one example. However, Shay

teaches a coated paper for gravure printing, wherein the coating is provided at a coating speed of 4000ft/min [1219m/min] (col. 14, line 40).

24. Kai and Shay are analogous art because they are from the same field of endeavor that is the coated paper art. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to apply the coating at a higher coating speed, and the motivation would be, as Shay suggests, to reduce the water forced into the substrate (col. 13, lines 24-25), and to increase production of the coated paper without damaging.

25. In the examples of Kai, sheet gloss and density have been taught (see Table 2); however, the invention of Kai is not limited to the examples. The Office realizes that all of the claimed effects or physical properties are not positively stated by the reference(s). However, the reference(s) teaches all of the claimed ingredients. Therefore, the claimed effects and physical properties, i.e. a sheet gloss and density would implicitly be achieved by a composite with all the claimed ingredients. If it is the applicant's position that this would not be the case: (1) evidence would need to be provided to support the applicant's position; and (2) it would be the Office's position that the application contains inadequate disclosure that there is no teaching as to how to obtain the claimed properties with only the claimed ingredients.

26. Claim 8: Kai does not teach the base paper contains amorous silicate in an amount of 3-12% by weight. However, Ryu teaches a paper containing silicate [0010] in an amount of 3 or less weight % [0011], wherein the amount over laps with the claimed value of 3-12%. Kai and Ryu are analogous art because they are from similar problem

solving area in relation to base paper. At the time of the invention it would have been obvious to a person of ordinary skill in the art to combine the silicate of Ryu with the invention of Kai, and the motivation would be, as Ryu suggests, controlling coefficient of friction and printing opacity of the paper [0011].

***Response to Arguments***

27. Applicant argued, in support of the declaration, that Kai does not teach the claimed density because the coated paper of Kai does not contain hydrated sodium aluminum silicate; and Kai does not teach the claimed sheet gloss because the coated paper of Kai does not contain plastic pigment. This argument is not persuasive for the following reason(s). The Examiner has already admitted that Kai does not teach the claimed hollow pigment (plastic pigment), thus the Examiner combined the hollow pigment of Matsumura, Sasaki or Hayashi with the invention of Kai, and the motivation for combining was to control the glossiness property and improve drying property. The Examiner has already admitted that Kai does not teach the claimed silicate (hydrated sodium aluminum silicate), thus the Examiner combined the silicate of Ryu with the invention of Kai, and the motivation for combining was to control density ([0011] of Ryu). The Examiner had shown that the claimed density and sheet gloss would implicitly be achieved by a composite with all the claimed components. The declaration does not provide evidence that the claimed density and sheet gloss would not be achieved. For the above reason(s) claims 6 and 8 stand rejected.

***Conclusion***

28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betelhem Shewareged whose telephone number is (571)272-1529. The examiner can normally be reached on Monday-Friday 7am-4:30pm.
29. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Bernatz, acting SPE for Carol Chaney can be reached on 571-272-1505. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
30. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BS  
May 9, 2009.

/Betelhem Shewareged/  
Primary Examiner, Art Unit 1794